III. Recommendations for National Number Conservation and Resource Optimization

We are recommending an integrated solution to the NPA proliferation crisis and the concomitant hemorrhaging of the NANP. We propose the implementation of a program of long-term number conservation rules, thousand-block number pooling and the collection of quarterly thousand-block fill rate data and forecast information. Each of the components of this integrated approach is in effect in Illinois. Long-term universal number conservation, as described below, has been in effect in five NPAs since May 1998. Mandatory thousand-block number pooling has been in effect for wireline carriers in the 847 NPA since June 1998, and is being rolled out into the 630, 312, 773 and 708 NPAs. Quarterly data reporting has been required for five Chicago NPAs since the first quarter of 1999.

Accordingly, we recommend that the Commission adopt federal regulations that mandate the following measures.

A. Long-Term Number Conservation

The first and foremost function of long-term number conservation is to maximize the utilization of number resources in an NPA. It has the added benefit of preserving thousand-number blocks for pooling. Over the long run, number conservation will help to preserve the North American Numbering Plan. In the short run, it will lengthen the

life of an NPA. What follows is a listing of the key components of long-term number conservation.

1. Mandate Participation By All Carriers

Long-term number conservation needs to be mandated and made universal. It is not practical to rely on voluntary agreements among a few concerned carriers. Only a rule can assure every carrier that their individual conservation efforts will not diminish their ability to compete vis-a-vis other carriers. Anti-competitive issues will arise under a voluntary system if just one carrier chooses not to conserve numbers. Mandatory long-term number conservation is fair and equitable, competitively neutral and places no greater burden on any one carrier than any other.

Long-term number conservation does not require new technology. It is a set of rules and procedures that any carrier with numbering resource can and should abide by. It is competitively neutral and does not unfairly or unduly burden any particular carrier or technology or service.

2. Distribute Numbers In Thousand-Blocks Only

There can be little doubt that the recent proliferation of NPAs and the increasing likelihood of a premature exhaust of the North American Numbering Plan has been caused by the fundamental inefficiencies inherent in the current number administration system. With the emergence of wireless services and the opening of the wireline

market to competition, new NPAs frequently begin operating on day one with half of all their NXXs assigned to carriers.

For example, a typical NPA might have twenty-five wireless carriers in two rate areas and fifteen wireline carriers in thirty rate areas. In a system where a carrier receives 10,000 numbers for each rate area, if every eligible carrier wants numbering resources in every applicable rate area when the NPA is established, then 500 NXXs would be immediately assigned. That would leave less than 300 NXXs available for growth. Essentially, that is what happened in the 847 NPA in Chicago's northern suburbs. Before a single 847 NPA phone number was assigned to a consumer, the 847 NPA had over 50% of its assignable NXXs allocated to carriers.

Given that the supply of NXXs in an NPA is relatively small compared to the demand from carriers (a result of the inefficient system of requiring an entire NXX code per rate center), an allocation system appropriate to an industry with numerous carriers, services, technologies and rate areas must be devised. A solution that is readily available and manifestly fair is to allocate telephone numbers to all carriers in blocks of one thousand. Thousand-block number allocation is the appropriate response to the vicious cycle of premature NPA exhaust and extremely short-lived relief plans that has taken hold in many parts of the country. It is an elegant solution in that it doesn't resort to brute force as would an individual telephone number allocation system. Moreover, a

thousand-block based system can be implemented now by all carriers and will be effective for the foreseeable future.

The FCC should mandate that NANPA establish a thousand-block allocation and tracking system and that all carriers implement thousand-block number acquisition, tracking and provisioning. A carrier in need of 1 to 999 numbers in a rate area would be allocated one thousand-block. A carrier needing 1,000 to 1,999 numbers would be allocated two thousand-blocks, etc. Also, the FCC should also modify the one NXX per carrier rule set forth in the *Second Report and Order*. That rule requires that every carrier certified to provide service no later than 90 days prior to the exhaust of the NPA shall be allocated one NXX in the NPA. With the implementation of thousand-block allocation this requirement should be changed to an allocation of one thousand-block.

3. Require A 90% Fill Rate For All Thousand-Blocks

Carriers should be required to utilize 90% or more of the phone numbers in their possession. Theoretically, there is no technical impediment to any carrier utilizing 100% of every thousand-block in its possession. In practice, the count of phone numbers not available for assignment in a thousand-block is added to as well as subtracted from therefore some cushion must be provided. The 10% cushion we recommend is based upon an analysis of thousand-block fill rate data collected from all

carriers in the 847 NPA. This data showed that it is not uncommon for a carrier to have a fill rate for a thousand-block of 100%.

A comparison of fill rate data from June 1997 and July 1998 showed that the 90% Fill Rate Requirement increased the number and proportion of thousand-blocks that met the standard. In 1997 2,238 thousand-blocks in 847 were 90% or more filled which was 37% of all allocated thousand-blocks. In 1998 the number of blocks 90% or more filled rose to 2,800 or 43% of all allocated thousand-blocks.

4. Require A 75% Request Threshold

Carriers should be allowed to request the allocation of new thousand-blocks for use in a rate area when the fill rate of their existing thousand-blocks in that rate area reaches 75%. This rule applies even when there are thousand-blocks from more than one NPA being used in a single rate area. This would permit even rapidly growing carriers to obtain thousand-blocks in a timely manner.

5. Require Use Of Only One Thousand-Block At A Time

Every carrier using NANP numbering resources shall use only one thousand-block in a rate area at a time for assignment of telephone numbers. Before a carrier can open a new thousand-block for assignment in a rate area, the carrier must have used 90% of all the numbers in all the other thousand-blocks it has in that rate area.

This rule applies even when there are thousand-blocks from more than one NPA being use in a rate area.

This requirement must be applied to thousand-blocks previously allocated to carriers, if number conservation is to be effective. The 847 data showed that about one-third of all thousand-blocks had fill rates greater than 10% but less than 90%. The average fill rate for these blocks was 50%, indicating the amount of numbers that would be wasted without this requirement.

6. Protect Thousand-Blocks 10% Or Less Filled For Pooling

Carriers must be mandated to protect as many blocks as possible for pooling. Until the FCC definitively decides if any carrier is to be exempted from pooling, the Commission should apply this rule to all carriers in the interim. This should be done by imposing a sanction on assigning numbers from any thousand-block with a fill rate of 10% or less prior to a carrier meeting the 90% fill rate requirement for a rate area. In other words, these blocks should only be opened after all other blocks in a carrier's inventory for a rate area achieve the 90% fill rate requirement.

7. Allow Exception With Certification Of A Bona Fide Request

To ensure that carriers would not have to turn away customers because of these conservation measures, an exception was developed to these conservation

requirements in Illinois that we recommend the FCC adopt. The exception allows a carrier to certify in writing that a residential or business consumer has made a bona fide request for a range of numbers larger than any range in its existing inventory of available numbers. This would allow a carrier to obtain a new thousand-block to serve that customer.

These conservation and optimization requirements are in place in the five Chicago area NPAs as a result of the ICC's Order in Docket Nos. 97-0192 and 97-0211 (Consolidated). A variation of these rules had been implemented voluntarily by carriers in the 847 NPA as far back as November 1997. The results for 847, as shown by thousand-block fill rate data collected during the course of the above-mentioned ICC proceeding and a subsequent compliance investigation, have been positive. The fill rate data sets available to us do not allow for a definitive conclusion because of the limited time these requirements were in effect when the data was collected. In addition, a subsequent ICC proceeding found that many carriers were not complying with the order in 97-0192 and 97-0211. Nevertheless, the trend was positive, as would be expected and the overall NPA utilization rate rose from 52% to 57% under these number conservation rules.

B. Define Telephone Numbers Status Categories

1. FCC Number Status Definitions

In the NOPR, the FCC seeks comment on a uniform set of definitions for the status of telephone numbers. The FCC also asks if these definitions should be codified in FCC rules or alternatively incorporated into industry guidelines. The definitions are for the following terms: 1. Administrative Number, 2. Aging Number, 3. Assigned Number, 4. Dealer Numbering Pool, 5. Ported Number, and 6. Reserved Number.

2. Illinois Definitions

In Illinois, a phone number was defined as "unavailable for assignment" if it fit into one of five categories. First, a number was defined as "unavailable for assignment" if it is a working number assigned to an end user, i.e., a business or residential consumer. Second, if the phone number is on reserve for a customer. Third, if it is in "aging," which is a process that delays the recycling or reassignment of a disconnected telephone number. Fourth, if it's used for testing. Fifth, if it is "otherwise unassignable" which is not a category with a precise or written definition. Any number not fitting into one of the five categories above was called "available for assignment" in Illinois.

As can be seen from the two columns below there are significant similarities between the FCC categories and the Illinois categories.

FCC Category		Illinois Category
1. Administrative Number	*covers*	Test Number
2. Aging Number	*is equal to*	Aging Number
3. Assigned Number	*is equal to*	Working Number
4. Dealer Numbering Pool	*is covered by*	Reserved Number
5. Ported Number	*is covered by*	Working Number
6. Reserved Number	*is equal to*	Reserved Number

There are some minor differences with regard to some categories. For example, the FCC's Administrative Number category includes numbers used for LRNs and other functions, as well as test numbers. Generally, the FCC definitions are more encompassing and precise. In the case of a ported number the FCC has a separate category for these numbers whereas in Illinois these are part of the working number category. Since data is collected in Illinois by thousand-block allocated, a carrier with a number ported to it does not count that number. The carrier that the number was ported from accounts for the number.

There is a significant difference between the FCC number status system and the one used in Illinois. That difference is that in Illinois the industry insisted on having the "otherwise unassignable" category included in the definition of a number "unavailable for assignment". Unfortunately, some carriers took considerable liberty with this

category in responding to ICC-mandated thousand-block fill rate data reports and subpoenas for usage information regarding the 847 NPA. For instance, some carriers with reserved or recently allocated NXXs that had not yet been activated on a switch reported that all 10,000 numbers were "unavailable for assignment" because they were "otherwise unassignable."

This logic skewed the 847 NPA utilization analysis by inflating the aggregate fill rate. In addition, it undermined the request threshold rule and fill rate requirement by allowing carriers to claim that they had no numbers available for assignment in an NXX when they actually held 10,000 numbers serving no function whatsoever.

One of the lessons to be learned from the Illinois experience is that whatever system is used to define phone number status, every category must have a specific definition or list of uses to which a phone number can be put. Common sense dictates that a count of numbers "unavailable for assignment" should not include numbers allocated to or reserved by a carrier simply because they have not been activated on a switch specifically assigned to consumers. Moreover, in projecting NPA exhaust once an NXX is reserved for a carrier it is deducted from the remaining supply for the NPA. NPA exhaust is not defined as the point at which all allocated NXX are activated on switches but when all NXX have been allocated to or reserved for carriers.

We recommend that the FCC codify a uniform set of definitions for the status of

telephone numbers in federal rules. We accept the definition of Administrative Number and Aging Number as is. We recommend that the definition of Assigned Number should limit the count of "customer service order pending" numbers to numbers that will be, within five calendar days, "working" as defined in section (a) of Para. 43.

We recommend the definition of a Ported-Out Number be codified into federal rules with a clarification. This definition should clearly state that it includes numbers ported because a thousand-block with assigned numbers was returned for pooling. However, this category should be used only by the carrier that ported numbers to another carrier not the carrier that the numbers were ported to. This follows from the logic of the LNP "snap back to block holder" rule.

We recommend that the definition of a Reserved Number be codified into federal rules as proposed by MCI WorldCom. That definition, as related in Para. 48, is "a number set aside by a service provider (carrier) under the provisions of a legally enforceable written agreement at the request of a specific customer for future use." Further, the "Dealer Numbering Pool" category should be codified as is. However, carriers should be required to account for numbers assigned to resellers and retail dealers as either "available for assignment" or "unavailable for assignment" as defined in this uniform set of definitions. Moreover, the definitions of "available for assignment" and "unavailable for assignment" as described in the NOPR should be codified as is, if

the MCI WorldCom definition of a reserved number is accepted. Otherwise we recommend that reserved numbers not be included in the definition of numbers "unavailable for assignment".

The definition of "working telephone number" should not include the wireless Temporary Local Directory Number (TLDN). First, they are appropriately categorized as "administrative" numbers. Second, to include TLDN numbers in the count of working numbers amounts to double dipping. There is no reason why TLDN numbers, since they are permanently transparent to the consumer, should be included in a category of numbers that consumers identify with and use as a personal telecommunications address or label.

C. Thousand-Block Number Pooling

Thousand-Block Number Pooling has been adequately described in the NOPR. *NOPR* at para. 136. The issue that the FCC seeks comment upon is not whether to implement thousand-block number pooling but how. "We believe that carriers should be required to participate in pooling in areas where benefits of pooling outweigh the associated costs. " *NOPR* at para. 138. Before we comment on how thousand-block pooling should be implemented, a number of other issues must be addressed.

1. Do Not Require Cost-Benefit Analysis As A Precondition

The first issue relates to the FCC's qualification that thousand-block number pooling should be done "where benefits of pooling outweigh the associated costs." This approach gives an unfair advantage to the opponents of pooling. It is far easier to quantify the costs of pooling than the benefits since the benefits are largely avoided costs and intangibles.

Number pooling is a cornerstone of the effort to preserve the NANP. Everyone supports number conservation, at least in concept. No one disputes the fact that thousand-block number pooling increases the efficiency of the numbering system and helps to conserve a finite public resource. We submit that the benefits of pooling are self-evident and so significant that its costs pale in comparison. Accordingly, the FCC should eliminate any "cost-benefit" pre-conditions on the deployment of pooling. This is not to suggest that cost-benefit analyses cannot be conducted or considered by the FCC or a state commission, merely that such studies should not be a precondition for the implementation of pooling.

Notably, Congress and the FCC did not put this type of qualification on the deployment of Local Number Portability. In the Telecommunications Act of 1996, Congress made the creation of competition in telecommunications markets a priority for the FCC. One of the measures that the FCC was directed to implement as a means of

promoting competition was LNP. Thus the FCC mandated that LNP would be deployed and established a schedule. This mandate contained no qualification that LNP would not have to be implemented where it did not show a positive result from a cost-benefit analysis. The parallel between number pooling and LNP is clear. Therefore, just as a cost benefit analysis was not a condition precedent for deploying LNP, nor should it be a condition precedent for implementing pooling.

2. Number Pooling for 100 largest SMSAs

The FCC should order wireline carriers in the 100 largest SMSAs to begin implementation of thousand-block number pooling as soon as it is technically feasible. Deployment in these SMSAs should be scheduled according to the most recent and reliable forecast of exhaust available. Planning should begin immediately upon the adoption of an order mandating pooling regardless of the amount of delay between the order and the deployment date. Planning should involve NANPA, the carriers, state Commissions, public safety organizations, elected officials, governmental agencies, community representatives, consumer advocates and any other interested party. A start date and an end date for the roll out should be determined by the FCC.

3. States Order Pooling Beyond 100 Largest SMSAs

The FCC should delegate authority to state commissions to order number pooling in areas outside of the 100 largest SMSAs as they deem necessary or

appropriate. For NPAs outside of the 100 largest SMSAs the FCC should delegate to state Commissions the authority to order carriers to develop LNP capability and implement number pooling on a rate area or NPA basis where appropriate, within six months of the order. State commissions may establish parameters for cost-benefit analysis, and or conduct cost-benefit analysis at their discretion. However, the FCC's order should indicate that a cost-benefit analysis is not required before a state Commission can order pooling.

4. Mandatory Return of Thousand-Blocks

A comparison of the Illinois number pooling "trial" in the 847 NPA with the New York voluntary pooling experiment shows that the benefits of the mandatory return of thousand-block with 10% or less fill are significant. In Illinois, as of June 4, 1999, 152 NXXs were saved by pooling while only 25 NXXs were added to the pool. (SEE 847 "Blocks Assigned" Report and "Combined Forecast" on the Number Pooling website http://www.numberpool.com/POOL/pac.htm). The New York experiment has had much more modest results. As the NOPR notes, the New York Commission attributed the smaller benefits in New York to the fact that carriers were not required to return thousand-block to the pool.

5. Supply Limits for Thousand-Blocks

The FCC should restrict the supply of thousand-blocks 10% or less contaminated that carriers can have in their inventories. The FCC rule should state that a carrier can have no more than a six-month supply of thousand-blocks with fill rates of 10% or less in any rate area in a non-jeopardy situation. In a jeopardy situation, thousand-blocks with fill rates of 10% or less in a rate area should not exceed a three-month supply. It should be noted that the pooling administrator will maintain an additional supply for each rate area pool, therefore large reserves would not be needed by carriers.

6. Optimal Rate Area Rule

The term "rate center" is commonly used when describing the geographic area within which numbers can be pooled. Unfortunately, this term is not always appropriate. By way of example, Chicago, Illinois comprises two NPAs, but is only one rate center. This one rate center is subdivided into eleven zones for the purpose of interlata call rating. For local and intralata toll call rating it is subdivided into thirty-odd "rate districts". Thus, in Chicago, the rate districts are smaller than the rate center. To further complicate the matter, in the 847 NPA, a suburban area outside Chicago, the rate centers are smaller than the rate districts.

In Illinois, a geographic boundary rule has been developed for number pooling.

The geographic boundary rule states that a carrier that gets a thousand-block from the number pool must use the block within the rate area that is the smaller of the rate district and the rate center. For example, a CLEC obtains a thousand-block from the pool that was turned in by another CLEC. If the ILEC for the NPA has a rating system based upon rate districts that are smaller than the rate centers listed in the LERG, then the CLEC that took the thousand-block from the pool must use the block only within the boundaries of the ILEC's rate district. Of course, the CLEC that turned in the thousand-block to the pool would have been required to follow the same rule when it was initially allocated the NXX.

The FCC should eliminate the confusion and the discrepancy between the term "rate center" and the actual practice of pooling. The term "rate center" should be replaced by "rate area" or "thousand-block pool area" (TBTA) or some other descriptive term to acknowledge that it may be a rate center in some cases and a rate district in others. In addition, the FCC should establish an Optimal Rate Area Rule that says that the geographic boundaries for a number pooling area should encompass the largest area possible that does not negatively effect the rating and billing system of any carrier actively providing service in the area.

7. Order Wireless and Paging Carriers to Pool

We strongly recommend that the Commission order both wireline and wireless service providers to participate in number pooling in the top 100 MSAs. The reasons for this recommendation are well-documented and support our belief that the participation of wireless carriers in number pooling will accomplish far more in terms of number optimization than could any other service-specific solution.

The NANP Exhaust Study submitted by the NANPA to the NANC on April 22, 1999 ("NANP Study"), projects exhaust of the entire North American Numbering Plan by approximately 2008 if number pooling is not implemented.[8] The results of the NANP Study present a compelling argument for implementing number pooling in all segments of the telecommunications industry. The NANP Study reports that if pooling is implemented for all segments of the industry, including CMRS and paging, exhaust would be delayed until 2094. The NANP Study demonstrates that mandatory return of unused and lightly contaminated blocks of numbers is the key to successfully staving off NPA exhaust.[9] Particularly compelling are the NANP Study's findings with respect to

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[8] North American Numbering Plan Exhaust Study, submitted by North American Numbering Plan Administration (NANPA), Lockheed Martin CIS, April 22, 1999.

[9] See Id. at 4-2, table 4-1

paging carriers:

> An important finding regarding pooling participation was first analyzed for the 847 1KB Pooling implementation in Illinois and is validated here. SPs who do not pool must utilize whole CO Codes for TN growth and footprint expansion rather than using 1 KBs from the 1 KB Pool. CO Codes become shareable by pooling participants but not by non-participants. *Full participation in pooling reduces CO Code consumption to less than 25% of the original CO Code demand rate without pooling. An industry segment (e.g. ILEC or paging) that uses only 10% of the CO Code demand rate can have a significant impact* if every other industry segment combined only uses 20% of the original Co Code demand rate." (*Emphasis added*).[10]

The NANP Study illustrates the counterproductive effect of exempting one particular industry segment such as paging carriers. Without mandatory recovery of unopened and lightly contaminated blocks, paging carriers alone will consume 1,723 NXX codes in 2001, while all other industry segments participating in pooling will consume 4,491 NXX codes.[11] Thus paging service providers would consume 30% of

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[10] The original study prepared by the NANPA and presented to both the FCC and the NANC in February 1999 analyzed a "model NPA" and found that while wireline pooling alone extends the life of that model NPA by 3 years, including CMRS in pooling extends the model NPA life span by 8 years. Further, including paging service providers extends the life span of the same NPA for an additional 2 years, for a total of 10 years beyond the point when the model NPA would otherwise exhaust. See Number Utilization Forecast and Trends, Prepared by Lockheed Martin CIS, North American Numbering Plan Administrator ("NANPA"), at 20. The same study demonstrates that the life of the model NPA can be extended by a total of 17 years if unused and lightly contaminated blocks are reclaimed for use in pools. Id. at 18.

[11] See NANPA Study at 4-3.

the total projected demand for codes. This is a dramatic increase from the consumption attributed to paging companies in 1998, only 9%.[12] Therefore, it is evident that wireless industry segments such as paging carriers account for an increasingly large proportion of NXX consumption. In light of this trend, it is essential that paging carriers participate in number pooling.

Based on figures reported in the NANP Study for 2002, the negative effect of excluding only CMRS, only paging carriers, or excluding both segments from number pooling while all other service providers must participate is dramatic.[13] Under one scenario, excluding only paging carriers from pooling would result in paging carriers consuming 1,466 codes in 2002, while the rest of the industry would consume 4,440 codes. [14] Excluding only CMRS would result in CMRS using 5,175 codes, while the rest of the industry combined would demand only 3,028 codes. Thus, an even more egregiously disparate result would occur as CMRS would use 63% of the total NXX code demand in 2002. In the worst case scenario-- the very scenario presented to the Commission-- where both CMRS and paging carriers would be exempt from pooling in 2002, 75% of the total projected demand for NXX codes would be devoured by the

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[12] Id.

[13] Id. at, Appendix B-6.

[14] Id.

wireless industry.[15]

In summary, if number pooling is not mandated by the Commission, the projected demand for NXX codes in 2002 would be at 18,676. On the other hand, if all industry segments are required to pool numbering resources, the projected demand for NXX codes drops dramatically to 4,974. Therefore, the wireless industry should be required to participate in number pooling.

8. Establish Deadlines for Wireless Pooling

If the FCC chooses not to order wireless carriers to participate in pooling to the extent that they can now, the FCC should order that wireless carriers implement pooling by a date no later than the most recent deadline for CMRS portability.

This deadline should apply to paging companies even though they are given a permanent waiver from LNP. Although the paging industry may have made a case for not having to implement LNP. It does not necessarily follow that it cannot participate in pooling.

9. Allow Wireless Overlays If Pooling Exemption Granted

If the Commission decides to temporarily or permanently exclude from number pooling CMRS and/or paging carriers, then, in our view, it would be incumbent upon the Commission to allow states to order technology or service specific overlays. In the

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[15] Id.

context of the present crisis, a balancing of equities requires that wireless and paging carriers accept a greater share of the burdens than they have up to this point.

If wireless and/or paging carriers are exempted from pooling, then technology specific overlays must be established to prevent the exempted carriers from defeating the benefits of pooling in existing NPAs and perpetuating the present problem of NPA proliferation and premature exhaust. The effect on the life expectancy of the NANP of such an exemption has been shown by the NANPA Study to be significant. Paging and CMRS carriers, who have contributed significantly to the premature exhaust of many NPAs, have enjoyed an exemption from the burdens of NPA splits in that they did not have to reprogram with new phone numbers the cell phones and beepers that their customers use. The urgency of the current state of NPA exhaust in this country requires that the wireless industry's exemption be lifted.

D. Require Quarterly Thousand-Block Data Disclosure

1. Quarterly Thousand-Block Fill Rate Reports

The FCC should order all carriers to provide NANPA with a report of the fill rate of every thousand-block in their possession. These reports should be done on a quarterly basis with data collected on the last day of each calendar quarter and transmitted to NANPA within seven days of collection. These reports should breakdown the thousand-block fill rate by category of availability as defined by the FCC.

In addition, blocks returned to the number pool should be identified with a count of numbers ported back. Blocks received from the number pooling administrator should be identified with a count of any numbers ported back to the carrier that turned the block in to the pool.

2. Thousand-Block Forecasts by Rate Area & Service Type

The FCC should order all carriers to prepare every calendar quarter a forecast by thousand-block for the following six quarters. This forecast should be by thousand-block, rate area and type of service, i.e., regular use, calling party pays, etc. These forecasts should be transmitted to NANPA within seven days of the end of each quarter.

3. Develop Forecast Methodology

Industry forecasts of NPA exhaust have proven notoriously inaccurate because they are derived from an aggregation of individual carrier predictions of NXX need by rate area that are of varying reliability. Since carriers are not required to provide NXX demand data, many choose not to do so. The North American Numbering Plan Administration should be ordered to develop an accurate scientific forecasting methodology for NPAs and for the NANP as a whole. This forecasting methodology should be based on thousand-block fill rate data and a rigorous statistical analysis. Carriers should be ordered to provide the NANPA with whatever data NANPA and the

FCC deem necessary to develop an accurate and reliable forecasting system.

E. Rescind the Mandatory 10-Digit Provision for Overlays

1. LNP Eliminated the Competitive Barrier with Overlay NPAs

In the *Second Report and Order* the FCC associated "local dialing disparity" with a deterrent to competition.

> We are requiring mandatory 10-digit dialing for all local calls in areas served by overlays to ensure that competition will not be deterred in overlay area codes as a result of dialing disparity. Local dialing disparity would occur absent mandatory 10-digit dialing, because all existing telephone users would remain in the old area code and dial 7 digits to call others with numbers in that area code, while new users with the overlay code would have to dial 10 digits to reach any customers in the old code.
>
> Customers would find it less attractive to switch carriers because competing exchange service providers, most of which will be new entrants to the market, would have to assign their customers numbers in the new overlay area code, which would require those customers to dial 10 digits much more often than the incumbent's customers, and would require people calling the competing exchange service provider's customer to dial 10-digits when they would only have to dial 7 digits for most of their other calls.[16]

The analysis in the above text is outdated. The FCC's conclusion that "competing exchange service providers . . . would have to assign their customers numbers in the new overlay area code," cannot be upheld in light of one of the most

[16] *Second Report and Order* at par. 287

significant facts about the proliferation of NPAs. The primary cause or catalyst of the current epidemic of premature NPA exhaust is the acquisition of NXX by "new entrants" seeking NXX with which to compete with the incumbent wireline carriers. By the end of 1998, competitive wireline carriers had acquired 13,996 NXX (15% of all the NXX allocated to that point). *NANPA Number Utilization and Forecast Trends* report. With close to 140 million phone numbers in their possession, competitive wireline carriers do not have to worry about the deterrent to competition of having to assign numbers from an overlay.

In addition, at the time that this decision was handed down the FCC recognized that LNP would mitigate the dialing disparity problem.

> We recognize that the implementation of permanent service provider number portability will reduce the anticompetitive impact of overlays by allowing end users to keep their telephone numbers when they change carriers. (Paragraph 290. p. 123)

Today, number portability is a reality. As we expected, LNP has largely eliminated the competitive necessity of having access to telephone numbers from the older NPAs as a device to entice customers to switch service providers. What the FCC did not consider at the time of the Ameritech Order was that number pooling would be developed. Number pooling can provide all carriers, including new entrants, greater access to numbers in existing NPAs. The 847 "trial" demonstrates the dramatic

benefits of number pooling.

When pooling began in June 1998, there were approximately 100 unallocated NXX in 847. Over time, about 50 NXX were reclaimed for a total of approximately 150 available NXX. After deducting the 25 NXX used to replenish the pool, the number pool has experienced a net gain of 125 NXX and the savings are growing as pooling continues. If the ICC had not ordered mandatory number pooling in the 847 NPA, 847 would have exhausted some time ago.

Because LNP allows customers to keep their existing numbers when they switch to a new carrier and because pooling provides access to 847 thousand-blocks, every carrier has significant reserves of 847 phone numbers. In addition, new wireline entrants will be able to get 847 thousand-blocks. Thus, the problem of customers not being willing to switch carriers because of "dialing disparity" has been resolved.

The language quoted at page 39 *supra* from the *Second Report and Order* appears to reflect the FCC's additional conviction that it must order 10-digit dialing in areas served by overlays in order to prevent the creation of a "disadvantaged" class of customers who will be forced to dial 10 digits for a majority of their calls, as opposed to those customers whose calls largely require only 7-digit dialing. But the FCC is attempting to address a false dichotomy. While the FCC may be concerned that an

overlay situation might necessitate some customers dialing disproportionately larger amounts of 10-digit telephone calls than other customers, we believe that, to a great extent, the demand for numbers in the underlay code will be largely addressed by the efficiencies of number conservation and number pooling. This is because the demand for numbers is currently driven more by the demand for new services by existing customers, rather than growth in the absolute number of brand-new customers. Therefore, any burdens of 10-digit dialing will not be disproportionately visited on one group of consumers as opposed to another if an overlay is imposed.

2. Mandatory Ten-Digit Dialing is Burdensome and Unpopular

The FCC recognizes that mandatory ten-digit dialing is a burden, is unpopular with the public, and state regulatory commissions are extremely reluctant to impose it. In fact, some states have resorted to NXX-wasting measures to avoid it:

> There is often significant customer resistance to ten-digit dialing, which may explain why more state commissions have chosen to implement splits rather than overlays. In fact, to preserve seven-digit dialing for inter-NPA calls within a community of interest, many states have authorized the use of "protected codes."[17]
>
> *Disruptive effects.* Ten-digit dialing, however, does present certain disruptive effects, particularly for consumers. Consumers often object to the inconvenience and confusion

[17] CC Docket No. 99-200 at par. 122, *In the Matter of Numbering Resource Optimization*, Notice of Proposed Rulemaking, (June 2, 1999).

> associated with having to remember and dial three extra digits. Also, some research raises a concern that the young, elderly and the memory impaired may be particularly affected by the change to ten-digit dialing, especially where 911 has not been implemented. Businesses may also incur costs associated with changing advertising and stationery, updating databases, and reprogramming customer premises equipment (CPE). Although the industry cost of implementing this measure will vary according to each geographic area and service provider, some carriers could experience substantial costs associated with modifications to switch translations and OSS, directory publishing, changes to announcement systems, and customer education.[18]

Thus, mandatory ten-digit dialing is a burden for consumers. Further, it is unnecessary in an LNP and pooling environment. The FCC must consider the negative impact that mandatory ten-digit dialing will have and the price that the public has already paid for repeated NPA splits. The public is already carrying more than its share of the load. The FCC should be looking for ways to lighten this load. Therefore, we strongly recommend that the FCC rescind the mandatory ten-digit dialing requirement for overlay NPAs.

[18] Id. at par. 125.

3. Mandatory 10-Digit Dialing Is Not Conservation

The NOPR states that "the majority of industry commenters support the conversion to mandatory ten-digit dialing as a number optimization measure."[19] Further, the NOPR appears to accept the characterization of ten-digit dialing as a number optimization measure. [20] The NOPR suggests that mandatory 10-digit dialing is an optimization measure because protected NXX codes can be reclaimed, and because it could potentially increase the quantity of NXX available in an NPA.[21]

We respectfully disagree with the NOPR's suggestion. Ten-digit dialing is not a number optimization measure. Protected NXX can be reclaimed without any change in the present dialing regime. As the NOPR recognized, "the New York Commission point[ed] out that ten-digit dialing is not required to reclaim protected NXX codes." [22] Moreover, the "D digit expansion"[23] that would be required for any increase in the number of NXX is fraught with problems and would not be easily or quickly

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[19] Id. at 126.

[20] *See* Id. at 123.

[21] Id.

[22] Id. at 126.

[23] *D digit expansion*. Expansion of the NANP so-called "D" digit (the fourth digit of a ten-digit telephone number) to include 0 and 1 could accompany the implementation of ten-digit dialing. *See* Id. at 127.

implemented. As the NANC noted in its report, the problems include: significant and costly technical modifications to switches, OSS, and customer premises equipment; inability to complete calls; and other implementation concerns.[24] Thus, D-digit expansion is a can of worms and will not neatly follow from a mandatory ten-digit dialing order. Since there is no guarantee that D-digit expansion will ever be performed, mandatory ten-digit dialing should not be considered as number conservation or resource optimization.

The NOPR also suggests that "the adoption of ten-digit dialing on a national basis might eliminate disincentives for states to adopt overlays."[25] The NOPR further suggests that, if it is adopted as part of a national numbering optimization policy, "customer confusion resulting from inconsistencies in dialing patterns from one area to another would be eliminated." [26] Only by replacing mandatory ten-digit dialing requirements with permissive, seven/eleven-digit dialing, will maladies such as customer confusion be remedied.

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[24] Id. at 128.

[25] Id. at 123.

[26] Id. at 124.

CONCLUSION

We recognize that the FCC has been presented with a wide variety of number resource optimization methods and proposals. Some of these would be simple to implement; others more difficult. Some can be implemented immediately; others may take years to deploy. We submit that a long-range strategy is necessary.

The IGCI recommend that the Federal Communications Commission adopt the Illinois number pooling and long-term number conservation model and order its implementation as a number resource optimization method for the nation. The recommendations we have made constitute a comprehensive solution that equitably addresses the present crisis of premature exhaustion of the nation's NPAs. Our recommendations will go a long way to helping prevent the collapse of the NANP.

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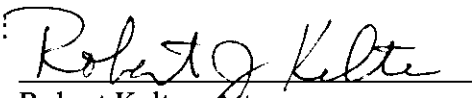
By: 

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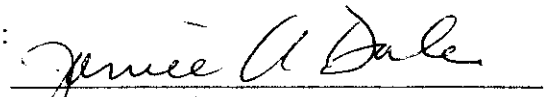
By: 

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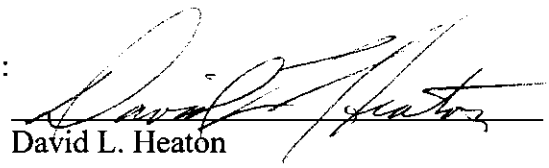
By: 

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